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Another way to combat deprivation is for the school to develop curricula consistent with the children's environmental experiences. The routine and structural activity lacking in the home should be found in the school. This curricula should begin in the preschool years and continue through the regular school years. Also, guidance programs should be developed to protect the children from stress, to create a supportive environment, and to resolve emotional conflicts.

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FACILITATING DEVELOPMENT IN THE PRE-SCHOOL CHILD: SOCIAL AND PSYCHOLOGICAL PERSPECTIVES

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A large portion of the following discussion will be the examination of some of the psycho-social highways that criss-cross the early life of the child, and how socio-educational engineering might provide the most facilitating architecture for maximizing human achievement.

Massive evidence makes it clear that a child's social experience is a very influential factor in his development; yet it is also obvious that the relationship between experience and development is an extremely complex one. A basic assumption of the approach to be presented in this paper is that there is a continual and influential interpenetration of environmental experience and psychological development along a broad front, and that therefore simple cause-effect models can be accurate on only the grossest level.

In a sense, our current social dilemma has the usual contradictions that every period feels are unique to its particular time. Historically, the present era may or may not have more contradictions that other periods. But the rapid development of automated, highly skilled, labor-reducing techniques does have revolutionary consequences for man's relationship to the social order, to work and leisure, and to intellectual activity. Further, the level of our technology, particularly in the field of communication, creates conditions in which these new techniques are rapidly disseminated. Thus, the time within which institutional and structural adjustments can take place is greatly reduced. This necessitates the deliberate and planned manipulation of social conditions in order to avoid, or at least attenuate, the sometimes invidious consequences of rapid change.

In a society of abundance, there is an amazingly large segment of our population living in a subsociety of social, economic, and educational impoverishment. The estimates range from 20 to 40 per cent of our population, depending on criteria. (For example see Harrington, 1963.) The problems associated with marginal employment and crowded, dehumanizing living conditions are, of course, characteristic of the lives of most of the peoples of the world. But here in this country we have the facilities, the

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productive capacity, and at least some of the knowledge required consciously to reorient social development. A necessary focus for such orientation should be the child, so that he can develop the requisite basic skills for the new technology and changing social institutions.

A thesis presented in this paper is that the behavioral scientist and the educator can facilitate the evolution of the educational institution so that it will be capable of preparing all children for optimal social participation, as the racial, social class, and sex gatekeepers become inoperative. The contemporary problems of education are to some extent a reflection of current technological, racial and urban conflicts inherent in accelerated social change. At the same time, the human sciences (though beset by similar problems) could become major instrumentalities for the resolution of social conflict, since they are among the few systems oriented toward change. For example, the intervention concepts in social psychology and psychiatry are relatively quite new. These disciplines can thus be seen as possible agents for the construction of blueprints to harmonize human needs with cultural transformations.

In general, the human sciences are moving from social and individual diagnosis to remedial therapies. Those sciences are now, in some of the more advanced thinking, concerned with primary prevention, ranging from mental illness and juvenile delinquency to disabilities in learning and socialization. To speculate on a possible avenue of future development, it might be that from this stage an orientation will develop toward assisting the individual to potentiate his intrinsic capacities for productive living and full individual realization.

This is by no means meant to minimize the importance of activities in other disciplines; rather, it is an attempt to specify the potential role and contribution of the human sciences. It must also be remarked that the knowledge available in the combined human sciences is still quite limited, and that too frequently formulas have been presented which are insufficiently related to scientific knowledge.

While to a major degree the behavioral sciences and education have run parallel courses, they have insufficiently interacted with and enriched each other. What better place is there to investigate meaningfully the development of learning processes—or of attitudes or of mental health—than in longitudinal studies in the context of the school, from the nursery school through college? It is always surprising to us how many educators are not aware of the exciting investigations of socialization, learning, and cognitive processes in the field of child development. On the other hand, too many social scientists look upon education and work in the educational field as "applied," "atheoretical," and somehow unrelated to the growth of a child into an adult. Just as medicine is the application of physiology, biochemistry, and similar sciences to human problems, so too could education be the application of the human sciences. As medicine discovers

principles and laws that are continually being circulated back to its basic sciences, so could education not only evaluate and validate the principles which it derives from the human sciences, but also could lead toward the genesis of methods of influencing and accelerating individual growth.

In order to achieve such integration, a crucial historical difference between education and psychiatry, sociology, and psychology must be recognized. While the latter have the impetus coming from both their newness and their response to challenge, education has the disadvantage of a long and encumbering history. In a sense, the institution of education—the school—*is* the status quo. Often it must operate through politically oriented bureaucracies that continually inhibit its potential for change and for developing strategies to meet social crises such as those inherent in the new urban America. These bureaucracies are often so large that introduction of meaningful change, even when agreed on by the higher echelons is limited by the clogging of communication channels with paper, red tape, and assorted other artifacts, and by the constraints under which the average classroom teacher operates.

Somehow, this great gap in the educational hierarchy, separating the educator and his concept from the classroom teacher with her idea, creates a discontinuity that results in much wasted energy and distortion of effort. A clear educational philosophy can come best from educators who are free enough from bureaucracy to communicate with the classroom teacher as a full professional, and to attenuate the burden of the past while setting up new relationships with the human sciences. Inherent in this approach is the necessity for effective cooperation between educators and behavioral scientists, so as to incorporate the growing knowledge of the socio-psychological development of the child into educational procedures in the interests of facilitating realization of his greatest intellectual and social potential.

The children most in need of help are from the economically and socially marginal and quasi-marginal segments of the community. These groups are the ones most caught in the technological and social changes; in many of our metropolitan areas they are becoming the majority of the center city population. It is in these groups that we find the highest proportion of unemployment, welfare support, and broken families. And it is in their children that we see the highest proportion of learning disabilities and school dropouts. While in the past it was possible to absorb most of such youth in unskilled, low-paying jobs, now the current adult generation is increasingly being replaced in such jobs by machines. With the number of unskilled and semi-skilled jobs decreasing, in order to find any place in the job market youth must now learn more complex functions, for which a successful educational experience is a prerequisite. This is a central problem for the total community, and a challenge for education. How it is met has wide ramifications for other underdeveloped areas outside our large cities and national boundaries.

There are various avenues of approach to the problem of both preventing learning disabilities and facilitating intellectual growth.

In recent years, there have been major curriculum renovations, enrichment programs, new systems for teaching mathematics and the sciences, programmed courses and teaching machines, as well as a multiplicity of new methods for teaching reading. However, in the disadvantaged, underdeveloped areas of our communities, where there is the large proportion of underachievers, these new methods are probably least applicable, being most often based on an assumption that the child has reached a particular level in skills which underlie them. As will be pointed out later, for the disadvantaged child this is an unwarranted assumption. For the most part, it is a correct assumption for the middle-class child; but here there are other problems. Too often, new methods are seen mainly as more effective techniques to help the child get into college and achieve occupation status goals, and the aim of education along with its innovations becomes narrowly pragmatic. This is not to say that new methods should not be devised and attempted, but rather, that they might be seen neither as solutions to underachievement nor as substitutions for the development and encouragement of intrinsic motivation toward intellectual mastery and scholastic achievement.

An approach that combines the preventive with the facilitating—and which would establish a basis for the absorption of new methods—is that of planned intervention at the earlier periods of development of the various components of the intellectual spectrum. Evidence which is accumulating points more and more to the influence of background variables on the patterns of language and cognitive development of the child, and a subsequent diffusion of the effects of such patterns into all areas of the child's academic and psychological performance. Deprived backgrounds thus lead to the inadequacy of such patterns. What is proposed is that experiential inadequacies in the social background can be compensated for by a planned enrichment, channeled through improved schools.

Reference has been made to the constellation of factors in lower-class life which are associated with a limited range of experiential variability available to the child. Of course, there are probably differing clusters of economic, social, and family factors associated with greater or lesser retardation. But the fact remains that lower social class status apparently predisposes to scholastic retardation, even though not all children are equally affected. Therefore, before discussing learning processes in the school it might be helpful to delineate some of the major features of urban slum life.

Geographically, there are crowded and dilapidated tenements quite at variance with the TV image of how people live. If the people are Negro, Puerto Rican, or Mexican-American, or poor mountain white, life is in a more-or-less segregated community. There are likely to be extremely

crowded apartments, high rates of unemployment, chronic economic insecurity, a disproportionate number of broken families, and (particularly in the case of the Negro) continual exposure to denigration and social ostracism of varying degrees. The educational level of the adults tends to be quite limited. In the homes, there is likely to be a nearly complete absence of books, relatively few toys, and, in many instances, nothing except a few normal home-objects which may be adapted as playthings. In addition—particularly but not exclusively where relatively new in-migrants are concerned—there is a great deal of horizonal mobility. The result is a pattern of life that exposes a child to a minimum of direct contacts with the central channels of our culture. The conditions of social inequality, the absence of an accessible opportunity structure, and the frequent non-availability of successful adult male models create an atmosphere that is just not facilitating to individual development. Moreover, the everyday problems of living, particularly those of economic insecurity and a multiplicity of children, leave minimum time for the adults who may be present to assist the child in exploring the world, to reward him for successful completion of tasks, or to help him in the development of a differentiated self-concept. Even in homes which are not broken, the practical manifestations of economic marginality result in the father sometimes holding two jobs and having little time for interaction with the child. We have found in various studies that children from these circumstances have relatively few shared or planned family activities, again resulting in a narrowing of experience.

The implications of these environmental conditions for the development of the child can be appreciated in terms of Hunt's (1961) discussion of Piaget's developmental theories. He points out that, according to Piaget, "... the rate of development is in substantial part, but certainly not wholly, a function of environmental circumstances. Change in circumstances is required to force the accommodative modifications of schemata that constitute development. Thus, the greater the variety of situations to which the child must accommodate his behavioral structures, the more differentiated and mobile they become. Thus, the more new things a child has seen and the more he has heard, the more things he is interested in seeing and hearing. Moreover, the more variation in reality with which he has coped, the greater is his capacity for coping" (pp. 258-259). In essence, it is this richness and variety which a compensatory enrichment program must provide.

Previously, I have said that emphasis on the importance of variety in the environment implies the detrimental effects of lack of variety (Deutsch, 1963). I then postulated that a child from any circumstance, who has been deprived of a substantial portion of the variety of stimuli to which he is maturationally capable of responding, is likely to be deficient in the equipment required for school learning. This does not necessarily imply restriction in the quantity of stimulation; rather, it refers to a restriction in variety—i.e.,

restriction to only a segment of the spectrum of stimulation potentially available. In addition to such restriction in variety, from the description of the slum environment, it might be postulated that the segments made available to children from that background tend to have poorer and less systematic ordering of stimulation sequences, thereby being less useful to the growth and activation of cognitive potential.

The most promising agency for providing environmental compensations is the school. It is through this institution, which reaches every child, that the requisite stimulation for facilitating learning, psychological maturation, and acculturation can be most efficiently organized and programed. Yet it is now estimated that up to 60 per cent of lower-class children are retarded two years or more in reading, by the time they leave the elementary school.

Before we place the entire responsibility on the school, however, an important fact must be noted. The overwhelming finding of studies on the relationship between social class and learning, school performance, and the like is that children from backgrounds of social marginality enter the first grade already behind their middle-class counterparts in a number of skills highly related to scholastic achievement. They are simply less prepared to meet the demands of the school and the classroom situation. Conversely, though, the school has failed to prepare to meet their needs. The failure of the educational institution to overcome the children's environmentally determined handicaps too often results in early failure, increasing alienation, and an increasingly greater gap between the lower-class and middle-class youngsters as they progress through school. In other words, intellectual and achievement differences between lower-class and middle-class children are smallest at the first grade level, and tend to increase through the elementary school years. It is here where the interaction between school and early environment, instead of having a facilitating influence, has a negative effect. While the school does not contribute to the initial problem (except through its effects on the previous generation), neither does it contribute to the overcoming of the initial handicaps.

It would seem quite reasonable, in the light of this discussion and its supporting evidence, to better prepare the child to meet the school's demands before he enters the first grade, and before there has been an accumulation of failure experiences and maladaptive behavior. It would also seem eminently reasonable that the school should accept this responsibility. At the same time, it does not seem reasonable that an institution which so far has generally failed to meet its responsibility to this group should simply be given a mandate, without the incorporation of new and appropriate knowledge and techniques. Here is where the knowledge from the behavioral sciences can be put to its most effective use.

For example, all peoples have difficulties in spanning cultural discontinuities, and the entrance of the child into school for the first time places him

in an environment which, in many respects, is discontinuous with his home. This discontinuity is minimal for the middle-class child, who is likely to have had the importance of school imprinted in his consciousness from the earliest possible age. For him, therefore, the school is very central and is continuous with the totality of his life experiences. As a result there are few incongruities between his school experiences and any others he is likely to have had, and there are intrinsic motivating and molding properties in the school situation to which he has been highly sensitized. Further, there is more likely to be contiguity in the school-faculty orientation with his home-family orientation. Failure can be interpreted to him in appropriate and familiar terms, and methods of coping with it can be incorporated, increasing the motivation or offering the necessary rewards, goals, or punishments to effect the desired change in performance.

For the lower-class child there is not the same contiguity or continuity. He does not have the same coping mechanisms for internalizing success or psychologically surviving failure in the formal learning setting. If the lower-class child starts to fail, he does not have the same kinds of operationally significant and functionally relevant support from his family or community—or from the school. Further, because of the differences in preparation, he is more likely to experience failure.

In this context, let us consider White's concept of competence motivation as a primary drive. The middle-class child comes to school prepared, for the most part, to meet the demands made on him. The expectations of his teachers are that he will succeed. As he confronts material that is congruent with his underlying skills, he is able to succeed; and thus he achieves the feeling of efficacy which White (1959) points out is so necessary to the "effectance motivation" which promotes continuing positive interaction with the environment. The lower-class child, on the other hand, experiences the middle-class-oriented school as discontinuous with his home environment, and further, comes to it unprepared in the basic skills on which the curriculum is founded. The school becomes a place which makes puzzling demands, and where failure is frequent and feelings of competence are subsequently not generated. Motivation decreases, and the school loses its effectiveness.

It is in the transitional years from the pre-school period through the elementary school years that the child is first subject to the influence and the requirements of the broader culture. It is then that two environments are always present for him: the home environment and the school environment. But it is also in these transitional (and especially in the pre-transitional) years that the young organism is most malleable. Thus, that is the point at which efforts might best be initiated to provide a third—an intervention—environment to aid in the reconciliation of the first two. Such reconciliation is required because, especially for the child from a disadvantaged background, there are wide discrepancies between the home and school

milieus. In the intervention environment, preventive and remedial measures can be applied to eliminate or overcome the negative effects of the discontinuities.

The importance of early intervention is underlined in the summary by Fowler (1962) of findings on cognitive learning in infancy and early childhood. He points out that seemingly minimal cognitive stimulation in the pre-school years, when organized appropriately to the capabilities of the child, can be highly effective in accelerating the development of intellectual functions.

Critical and optimal time periods for many aspects of development and learning in both humans and animals have long been studied. These concepts are always related to stimulation or interaction between the organism and the environment, and thus represent an important additional dimension when we discuss influences on development and behavior. Apparently, it is not sufficient merely to provide particular stimulation for the growing individual; it must be supplied at a special time, or within particular time limits, if it is to have the most desired effect. Thus, a program intended to compensate for environmental deprivation would be most effective if supplied at a particular stage in the life of the child.

Scott's (1962) summary of the relevant research information on critical stages in development indicates that the period of greatest plasticity is during the time of initial socialization. Since the bulk of the literature in this area is on animals, generalizations must be carefully confined. But seemingly, as one ascends the phylogenetic scale, there are greater ranges of time during which the organism has high levels of plasticity and receptivity. There is an insufficient body of data to hypothesize a most critical period for learning in the human child, and there are probably different critical or optimal periods for different functions. However, at about three or four years of age there is a period which would roughly coincide with the early part of what Piaget calls the "preoperational stage." It is then that the child is going through the later stages of early socialization; that he is required to focus his attention and monitor auditory and visual stimuli; and that he learn through language to handle simple symbolic representations. It is at this three- to four-year-old level that organized and systematic stimulation, through a structured and articulated learning program, might most successfully prepare the child for the more formal and demanding structure of the school. It is here, at this early age, that we can postulate that compensation for prior deprivation can most meaningfully be introduced. And, most important, there is considerably less that has to be compensated for at this age than exists when, as a far more complex and at least somewhat less plastic organism, the child gets to the first grade.

This position and its implications for specially organized early stimulation of the child find support in a recent article by Bruner (1961) on cognitive consequences of sensory deprivation. He says: "Not only does early

deprivation rob the organism of the opportunity of constructing models of the environment, it also prevents the development of efficient strategies for evaluating information—for digging out what leads to what and with what likelihood. Robbed of development in this sphere, it becomes the more difficult to utilize probable rather than certain cues, the former requiring a more efficient strategy than the latter" (pp. 202-203). Bruner goes on to a discussion of nonspecific transfer of training in which, I think, he provides the most incontrovertible foundation for a structured, systematic pre-school enrichment and retraining program which would compensate, or attempt to compensate, for the deficiencies in the slum environment. His discussion is not of slums or compensation, but in his pointing up the importance of the "normally rich" environment, the serious cognitive consequences of the deprived environment are thrown into relief. Bruner says, ". . . nonspecific or generic transfer involves the learning of general rules and strategies for coping with highly common features of the environment" (p. 203). After pointing out that Piaget ". . . remarks upon the fact that cognitive growth consists of learning how to handle the great informational transformations like reversibility, class identity, and the like" and that Piaget speaks of these as "strategies for dealing with or, better for creating usable information," Bruner proposes: ". . . that exposure to normally rich environments makes the development of such strategies possible by providing intervening opportunity for strategic trial and error" (p. 203).

What Bruner talks about under "trial and error" requires a certain level of motivation and exploratory efforts. I have previously discussed the possible role of early failure experiences in influencing the motivational and goal orientations, and the self-expectancies, of the lower-class child. When the lower-class child gets into first grade, too frequently his cognitive, sensory, and language skills are insufficiently developed to cope with what for him are the complex and confusing stimuli offered by the school. It is the interaction of these motivational and maturational dynamics that makes it extremely important for society, through institutions such as the school, to offer the lower-class child an organized and reasonably orderly program of stimulation, at as early an age as possible, to compensate for possible cognitive deficit.

The focus has been on deficit because of the general hypothesis that the experiential deprivations associated with poverty are disintegrative and subtractive from normative growth expectancies. The extent of academic failure and reading retardation associated with lower-class status—and especially with minority group membership within the lower class—makes it imperative that we study the operational relationship between social conditions and these deficits, and the subsequent failure of the school to reverse the tendency toward cumulative retardation in the primary grades.

Our work has been directed particularly toward delineating the effects of conditions of life on cognitive structures. For an understanding of these

relationships and the scientific development of enrichment programs, we have emphasized the role of specific social attributes and experiences in the development of language and verbal behavior, of concept formation and organization, of visual and auditory discrimination, of general environmental orientation, and of self-concepts and motivation; and of all of this to school performance. It is the areas mentioned which apparently are essential to the acquisition of scholastic skills, and around which a basic curriculum for early childhood should be developed. Pragmatically, this must be a program which successfully teaches disadvantaged children.

Examination of the literature yields no explanation or justification for any child with an intact brain, and who is not severely disturbed, not to learn all the basic scholastic skills. The failure of such children to learn is the failure of the schools to develop curricula consistent with the environmental experiences of the children and their subsequent initial abilities and disabilities.

As has been emphasized previously in this paper, a compensatory program for children, starting at three or four years of age, might provide the maximum opportunity for prevention of future disabilities and for remediation of current skill deficiencies. In addition, such a program might serve to minimize the effect of the discontinuity between the home and school environments, thereby enhancing the child's functional adjustment to school requirements.

For an early enrichment program, one model available is that developed by Maria Montessori (1959) in the slums of Italy. Though her theoretical system need not be critically evaluated here, there is much in her technology that could productively be re-examined and incorporated in compensatory programs. Basically, this includes the organization of perceptual stimuli in the classroom, so that singular properties become more observable, one at a time, without the distraction of competing, overly complex elements. For example, materials used to convey and illustrate the concept of size and size differential are all the same color and shape. This maximizes the attentional properties of size, and minimizes competing elements. Use of such materials should make it possible for size discriminations to be learned more easily. This method is, of course, carried over to many fields, and the availability of such stimuli under the Montessori system gives the child an opportunity to select materials consistent with his own developmental capabilities. This makes possible success experience, positive reinforcement, and subsequent enhancement of involvement and motivation. The attention to the minutiae of learning, and the systematic exposure to new learning elements based on prior experience, could allow for the development of individualized learning profiles. This would be particularly appropriate for a compensatory program, where there is a great deal of variation in individual needs.

There is, however, a major variable which is apparently inadequately handled by this method, and that is language.

Language can be thought of as a crucial ingredient in concept formation, problem-solving, and in the relating to and interpretation of the environment. Current data available to the author and his co-workers tend to indicate that class differences in perceptual abilities and general environmental orientation decrease with chronological age, while language differences tend to increase.

In a social-class-related language analysis, Bernstein (1960), an English sociologist, has pointed out that the lower class tends to use informal language and mainly to convey concrete needs and immediate consequences, while the middle-class usage tends to be more formal and to emphasize the relating of concepts.[1] This difference between these two milieus, then, might explain the finding in some of our recent research that the middle-class fifth grade child has an advantage over the lower-class fifth grader in tasks where precise and somewhat abstract language is required for solution. Further, Bernstein's reasoning would again emphasize the communication gap which can exist between the middle-class teacher and the lower-class child.

One can postulate that the absence of well-structured routine and activity in the home is reflected in the difficulty that the lower-class child has in structuring language. The implications of this for curriculum in the kindergarten and nursery school would be that these children should be offered a great deal of verbalized routine and regulation, so that positive expectations can be built up in the child and then met. It can also be postulated that differences in verbal usage are directly attributable to the level of interaction of the child with the adult, and at this age to a lesser extent, with peers.

In observations of lower-class homes, it appears that speech sequences seem to be temporally very limited and poorly structured syntactically. It is thus not suprising to find that a major focus of deficit in the children's language development is syntactical organization and subject continuity. But in analysis of expressive and receptive language data on samples of middle- and lower-class children at the first and fifth grade levels, there are indications that the lower-class child has more expressive language ability than is generally recognized or than emerges in the classroom. The main differences between the social classes seem to lie in the level of syntactical organization. If, as is indicated in this research, with proper stimulation a surprisingly high level of expressive language functioning is available to the same children who show syntactical deficits, then we might conclude that the language variables we are dealing with here are by-products of social experience rather than indices of basic ability or intellectual level. This

[1] In a recent discussion, Bernstein indicated that he was replacing the terms "public" and "formal" with the terms "elaborated" and "restricted." He feels that the latter offer better analytic distinctions and operate at a higher level of abstraction.

again suggests a vital area to be included in any pre-school enrichment program: training in the use of word sequences to relate and unify cognitions.

A language training program would require the creation of a rich, individualized language environment, where words are repeatedly placed in a meaningful context, and where the child is allowed multiple opportunities for expressive language demonstrations as well as for receiving language stimuli under optimal conditions and being encouraged to make appropriate responses. More specifically, stress could be placed on the following areas: orienting feedback, so that if the child says "give me the ——" or "where is ——," the teacher consciously instructs him in a complete sentence as to direction, location, placement, context, etc.; the systematic attempt to increase vocabulary; allowing the child to sort symbols, pictures, and artifacts with letters and words; verbal labelling practice; relating objects and experiences verbally, for example, constructing stories using specified objects and events; every child completing differently incomplete stories suggested by the teacher; reinforcing and encouraging the simultaneous articulation of motor behavior. Through the verbal area it is also possible to train memory, to some extent to train auditory discrimination, and to improve environmental orientation. However, it is not the purpose of this paper to go into a detailed description of potential enrichment procedures.

Working out compensatory programs is based on the assumption that retardation in achievement results from the interaction of inadequately prepared children with inadequate schools and insufficient curricula. This in turn is based on the contention that this large proportion of children is not failing because of inferior innate resources. Also implied is the assumption that one does not sit by and wait for children to "unfold," either on the intellectual or behavioral levels. Rather, it is asserted that growth requires guidance of stimulation, and that this is particularly valid with regard to the child who does not receive the functional prerequisites for school learning in the home. Hunt (1961) points out that ". . . the counsel from experts on child-rearing during the third and much of the fourth decades of the twentieth century to let children be while they grow and to avoid excessive stimulation was highly unfortunate" (p. 362). This is particularly true with regard to lower-class children. We have found that, controlling for socio-economic status, children with some pre-school experience have significantly higher intelligence test scores at the fifth grade than do children with no pre-school experience (Deutsch and Brown, 1964).

But it is not necessary to consider special education programs only on the pre-school level, even though that is what has been emphasized here. Rather, to assure stability of progress, it would be desirable to continue special programs for several more years. The construction of a pre-school program does not absolve a community or a school system from the responsibility to construct an effective strategy for teaching the marginal youngster from kindergarten on. In fact, if there is to be a reversal of some

of the sequelae associated with poverty discussed in this paper, programs must have continuity, at least through the period of the establishment of the basic scholastic learning skills. This means that it is necessary for the community to support kindergartens with reasonable enrollments and adequate equipment, as well as specialized training of staff. As far as the primary grades are concerned, the continuation of special programming through establishment of basic skills would involve probably the time through the third grade year. This level is used, because there is empirical reason to believe that levels of achievement for different social classes start their greatest divergence here. This is probably so because here the work begins to become less concrete and more abstract, more dependent on language symbolization, and, probably most important, more related to good reading skills. For these reasons, it would seem that the child from the pre-school and enriched kindergarten classes might best remain in a special ungraded sequence through the third grade level, a period in which he could be saturated with basic skill training, and not be allowed to move on until he has attained basic competence in the skills required by the higher grades. Such an ungraded school would also be of considerable interest theoretically, inasmuch as the child would be in its program through the preoperational stage delineated by Piaget. This should make it possible to devise a systematic curriculum that is consistent with the actual developmental levels of the child during the early childhood period.

Fowler (1962) points out that—

> Few systematic methods have been devised for educating young children, especially in complicated subject matter. We have in mind methods for simplifying and organizing the presentation of cognitive stimuli. Equally important, methods must be sufficiently flexible and play oriented to be adaptable to the primary learning levels and personality organization characteristic of the infant and young child.
>
> The advantages of utilizing the now relatively untapped "preschool" years for cognitive education are, of course, manifest. Most obvious, is the availability of more years of childhood to absorb the increasingly complex technology of modern society, a technology already requiring many of the more productive years of development to acquire. A second is the less evident but more crucial possibility that conceptual learning sets, habit patterns, and interest areas, may well be more favorably established at early than at later stages of the developmental cycle (pp. 145-146).

There are those people who seem to fear the word "cognitive," sometimes correctly, because they are reacting to the over-stringent mechanical models of the past. These models are not what is meant. The potentiation of human resources through the stimulation of cognitive growth could represent a primary therapeutic method for developing positive self-attitudes and a meaningful self-realization. For the lower-class child especially, I

would postulate that time is extremely valuable if the deficits are not to be cumulative and to permeate the entire functioning of the child.

The overgeneralized influence on some sections of early childhood education of the emphasis in the child guidance movement upon protecting the child from stress, creating a supportive environment, and resolving emotional conflicts has done more to misdirect and retard the fields of child care, guidance, and development than any other single influence. The effect has especially operated to make these fields ineffective in responding to the problems of integrating and educating the non-white urban child. These orientations have conceived of the child as being always on the verge of some disease process, and have assigned to themselves the role of protecting the child in the same manner that a zoo-keeper arranges for the survival of his charges. Too frequently a philosophy of protectiveness that asks only about possible dangers has prevailed over any question of potential stimulation of development. The attitude that perhaps helped to create this policy of protectionism can also be seen in the suburban "mom-ism" that so many sociologists and psychoanalysts have commented on. The child is a far healthier and stronger little organism, with more intrinsic motivation for variegated experience and learning, than the over-protectionists have traditionally given him credit for.

As Fowler (1961) states further–

> Much if not most of the energy in child psychology and development in late years has been concentrated on the child's personality, perceptual motor, and socioemotional functioning and development. Originating primarily as a reaction to historically inadequate and stringent methods, fears have generalized to encompass early cognitive learning per se as intrinsically hazardous to development. As legitimate areas of study, the contributions of studies on perceptual-motor and socioemotional problems are obvious. But in the field of child guidance, interest in these areas has come to permeate and dominate work in child development almost to the exclusion of work on cognitive learning. In harking constantly to the dangers of premature cognitive training, the image of the "happy", socially adjusted child has tended to expunge the image of the thoughtful and intellectually educated child. Inevitably, in this atmosphere, research (and education) in cognition has lagged badly, especially since the 1930's, not only for the early years of childhood but for all ages (p. 145).

And as Hunt (1961) says: "The problem for the management of child development is to find out how to govern the encounters that children have with their environments to foster both an optimally rapid rate of intellectual development and a satisfying life" (pp. 362-363).

A curriculum as discussed here should serve both for the primary prevention of the social deviancies associated with deprivation and for the stimulation of healthy growth and utilization of individual resources. This

orientation would represent one effective method of offering opportunities to all peoples to overcome and break the chains of social and historical limitations that have been externally imposed on them. This of course has immediate significance to the current critical questions in both race relations and education in America.

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